

ORIGINAL

**OPEN MEETING
REVISED MEMORANDUM**



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AZ CORP COMMISSION
NOV 30 2018

2018 NOV 30 P 4: 54

Arizona Corporation Commission

TO: THE COMMISSION **DOCKETED**
FROM: Utilities Division **NOV 30 2018**
DATE: November 30, 2018 **DOCKETED BY**
RE: IN THE MATTER OF THE NOTICE OF PROPOSED RULEMAKING
REGARDING INTERCONNECTION OF DISTRIBUTED GENERATION
FACILITIES (DOCKET NO. RE-00000A-07-0609)

INTRODUCTION

Enclosed are the Arizona Corporation Commission ("Commission") Staff's Memorandum and Proposed Order for In the Matter of the Notice of Proposed Rulemaking Regarding Interconnection of Distributed Generation Facilities (Docket No. RE-00000A-07-0609). This is only a Staff recommendation to the Commission; it has not yet become an order of the Commission. The Commission can decide to accept, amend or reject Staff's proposed order.

You may file comments to the recommendation(s) of the proposed order by filing an original and thirteen (13) copies of the comments with the Commission's Docket Control Center at 1200 W. Washington St., Phoenix, AZ 85007 by 4:00 p.m. on or before **December 10, 2018**.

This matter may be scheduled for Commission deliberation at its Open Meetings scheduled **December 17, 2018**, at 10:00 a.m. and **December 18, 2018**, at 10:00 a.m.

If you have any questions about this matter, please contact Patrick LaMere of our Staff at (602) 542-4382, or Elijah Abinah, Director, at (602) 542-6935.

BACKGROUND

On April 18, 2018, Staff docketed a Memorandum and Proposed Order with proposed rules. This Memorandum supersedes the Memorandum dated April 18, 2018.

On April 23, 2018, Staff docketed Correspondence that requested interested parties to respond to Staff's proposed rules by docketing written comments. In response, comments were filed by Western Resource Advocates and Southwest Energy Efficiency Project; Alliance for Industrial Efficiency; Energy Freedom Coalition of America; Energy Storage Association; Arizona Public Service Company; and Tucson Electric Power Company and UNS Electric, Inc.

Based on the comments filed by various stakeholders, Staff made some revisions to the proposed rules.

HISTORY OF INTERCONNECTION OF DISTRIBUTED GENERATION

Commission Decision No. 67744 (April 7, 2005), ordered Staff to facilitate a workshop process to consider outstanding issues concerning Distributed Generation.

A series of workshops were held from July 2005 through March 2006 to address the matter of Interconnection of Distributed Generation Facilities.

Participants in the workshops included representatives from utilities, government agencies, energy efficiency and environmental advocacy groups, utility investors, large industrial consumers, advocates for renewable resources, competitive power providers, advocates for distributed generation, product suppliers, research entities, and others.

In addition, the Energy Policy Act of 2005 requires each state regulatory authority to consider certain PURPA¹ standards, including one on the Interconnection of Distributed Generation Facilities.

On January 24, 2007, based on stakeholder input and internal review, Staff docketed a Staff Report in Docket No. E-00000A-99-0431, which contained its proposed version of an Interconnection document that included proposed processes and procedures for standardizing the Interconnection of Distributed Generation Facilities. Interested parties provided written comments.

Commission Decision No. 69674 (June 28, 2007), ordered Staff to begin a Rulemaking process to convert the Interconnection document into rules.

On October 19, 2007, Staff docketed a memorandum requesting to have a docket opened for the purpose of amending the Arizona Administrative Code ("A.A.C.") Rules for Fixed Utilities regarding Interconnection of Distributed Generation Facilities. As a result, this docket was opened.

On June 26, 2015, Staff filed its initial draft of proposed rules, with written comments received from interested parties in July 2015. Staff facilitated workshops on April 13, 2016 and June 15, 2016, to discuss technical and policy-related topics proposed in the initial draft of the rules.

On September 6, 2017, Staff filed a second draft of proposed rules and requested interested parties to docket written comments. On November 6, 2017, a final workshop was conducted by Staff to discuss outstanding technical topics.

Written comments were received from Alliance for Industrial Efficiency, The Alliance for Solar Choice LLC, Arizona Investment Council, Arizona Public Service Company, Arizona Solar

¹ Public Utilities Regulatory Act of 1978.

Energy Industries Association, Distribution Energy Resource Alliance, Energy Freedom Coalition of America, Energy Storage Association, Grand Canyon Electric Cooperative Association, IBEW Arizona State Association Inc., Interstate Renewable Energy Council, Southwest Energy Efficiency Project, Southwest Gas Corporation, Sur run, Inc., Tucson Electric Power Company and UNS Electric, Inc., Western Grid Group, and Western Resource Advocates.

STAFF RECOMMENDATIONS

Staff recommends that the Commission direct Staff to file, by January 11, 2019, with the office of the Secretary of State, for publication in the *Arizona Administrative Register* no later than February 1, 2019, (1) a Notice of Rulemaking Docket Opening and (2) a Notice of Proposed Rulemaking.

Staff further recommends that the Commission direct the Hearing Division to hold oral proceedings to receive public comment on the Notice of Proposed Rulemaking on March 11, 2019, at 10:00 a.m. or as soon as practicable thereafter, in Room 222 at the Commission's offices in Tucson, Arizona and on March 15, 2019, at 10:00 a.m. or as soon as practicable thereafter, in Hearing Room No. 1 at the Commission's offices in Phoenix, Arizona.

Staff also recommends that interested parties be invited to provide comments to the Notice of Proposed Rulemaking by filing comments with the Commission's Docket Control by March 4, 2019; by filing comments in response to other interested parties' comments with Docket Control by March 11, 2019; and by providing oral comments at the proceedings to be held on March 11 and 15, 2019.

Staff recommends that the Commission establish additional procedural deadlines and requirements as may be necessary consistent with the Administrative Procedures Act and prior Commission rulemaking procedures.



Elijah O. Abinah
Director
Utilities Division

EOA:PCL:red\WVC

ORIGINATOR: Patrick LaMere

On this 30th day of November, 2018, the foregoing document was filed with Docket Control as a **Utilities Division Memorandum & Proposed Order**, and copies of the foregoing were mailed on behalf of the Utilities Division to the following who have not consented to email service. On this date or as soon as possible thereafter, the Commission's eDocket program will automatically email a link to the foregoing to the following who have consented to email service.

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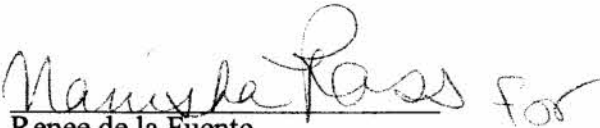
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By:


Renee de la Fuente
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BEFORE THE ARIZONA CORPORATION COMMISSION

TOM FORESE
Chairman
BOB BURNS
Commissioner
ANDY TOBIN
Commissioner
BOYD DUNN
Commissioner
JUSTIN OLSON
Commissioner

IN THE MATTER OF THE NOTICE OF PROPOSED RULEMAKING REGARDING INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES.	} DOCKET NO. RE-00000A-07-0609 DECISION NO. _____ <u>ORDER</u>
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Open Meeting
December 17 and 18, 2018
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. On April 18, 2018, Staff docketed a Memorandum and Proposed Order with proposed rules. This Order supersedes the Proposed Order dated April 18, 2018.
2. Attached to this Order as Exhibit A is the Arizona Corporation Commission (“Commission”) Utilities Division’s (“Staff”) proposed draft rules for the Interconnection of Distributed Generation Facilities.
3. On April 23, 2018, Staff docketed Correspondence that directed interested parties to respond to Staff’s proposed rules by docketing written comments. In response, comments were filed by Western Resource Advocates and Southwest Energy Efficiency Project; Alliance for Industrial Efficiency; Energy Freedom Coalition of America; Energy Storage Association; Arizona Public Service Company; and Tucson Electric Power Company and UNS Electric, Inc.
4. Based on the comments filed by various stakeholders, Staff made some revisions to the proposed rules.

...

History of Interconnection of Distributed Generation

5. Commission Decision No. 67744 (April 7, 2005), ordered Staff to facilitate a workshop process to consider outstanding issues concerning Distributed Generation.

6. A series of workshops were held from July 2005 through March 2006 to address the matter of Interconnection of Distributed Generation Facilities.

7. Participants in the workshops included representatives from utilities, government agencies, energy efficiency and environmental advocacy groups, utility investors, large industrial consumers, advocates for renewable resources, competitive power providers, advocates for distributed generation, product suppliers, research entities, and others.

8. In addition, the Energy Policy Act of 2005 requires each state regulatory authority to consider certain PURPA¹ standards, including one on the Interconnection of Distributed Generation Facilities.

9. On January 24, 2007, based on stakeholder input and internal review, Staff docketed a Staff Report in Docket No. E-00000A-99-0431, which contained its proposed version of an Interconnection document that included proposed processes and procedures for standardizing the Interconnection of Distributed Generation Facilities. Interested parties provided written comments.

10. Commission Decision No. 69674 (June 28, 2007), ordered Staff to begin a Rulemaking process to convert the Interconnection document into rules.

11. On October 19, 2007, Staff docketed a memorandum requesting to have a docket opened for the purpose of amending the Arizona Administrative Code ("A.A.C.") Rules for Fixed Utilities regarding Interconnection of Distributed Generation Facilities. As a result, this docket was opened.

12. On June 26, 2015, Staff filed its initial draft of proposed rules, with written comments received from interested parties in July 2015. Staff facilitated workshops on April 13, 2016 and June 15, 2016, to discuss technical and policy-related topics proposed in the initial draft of the rules.

...

¹ Public Utilities Regulatory Act of 1978.

1 13. On September 6, 2017, Staff filed a second draft of proposed rules and requested
2 interested parties to docket written comments. On November 6, 2017, a final workshop was
3 conducted by Staff to discuss outstanding technical topics.

4 14. Written comments were received from Alliance for Industrial Efficiency, The
5 Alliance for Solar Choice LLC, Arizona Investment Council, Arizona Public Service Company,
6 Arizona Solar Energy Industries Association, Distribution Energy Resource Alliance, Energy
7 Freedom Coalition of America, Energy Storage Association, Grand Canyon Electric Cooperative
8 Association, IBEW Arizona State Association Inc., Interstate Renewable Energy Council,
9 Southwest Energy Efficiency Project, Southwest Gas Corporation, Sur run, Inc., Tucson Electric
10 Power Company and UNS Electric, Inc., Western Grid Group, and Western Resource Advocates.

11 **Staff Analysis and Recommendations**

12 15. Staff recommends that the Commission direct Staff to file, by January 11, 2019, with
13 the office of the Secretary of State, for publication in the *Arizona Administrative Register* no later
14 than February 1, 2019, (1) a Notice of Rulemaking Docket Opening and (2) a Notice of Proposed
15 Rulemaking.

16 16. Staff further recommends that the Commission direct the Hearing Division to hold
17 oral proceedings to receive public comment on the Notice of Proposed Rulemaking on March 11,
18 2019, at 10:00 a.m. or as soon as practicable thereafter, in Room 222 at the Commission's offices in
19 Tucson, Arizona and on March 15, 2019, at 10:00 a.m. or as soon as practicable thereafter, in
20 Hearing Room No. 1 at the Commission's offices in Phoenix, Arizona.

21 17. Staff also recommends that interested parties be invited to provide comments to the
22 Notice of Proposed Rulemaking by filing comments with the Commission's Docket Control by
23 March 4, 2019; by filing comments in response to other interested parties' comments with Docket
24 Control by March 11, 2019; and by providing oral comments at the proceedings to be held on March
25 11 and 15, 2019.

26 18. Staff recommends that the Commission establish additional procedural deadlines and
27 requirements as may be necessary consistent with the Administrative Procedures Act and prior
28 Commission rulemaking procedures.

CONCLUSIONS OF LAW

1. Pursuant to Article XV of the Arizona Constitution and A.R.S. Title 40 generally, the Commission has jurisdiction over the matters raised herein.

2. It is in the public interest to adopt Staff's recommendations.

ORDER

IT IS THEREFORE ORDERED that the Utilities Division shall prepare and file, by January 11, 2019, with the office of the Secretary of State, for publication in the Arizona Administrative Register no later than February 1, 2019, (1) a Notice of Rulemaking Docket Opening and (2) a Notice of Proposed Rulemaking that includes the text of the rules as included in Exhibit A, attached hereto and incorporated herein by reference.

IT IS FURTHER ORDERED that the Hearing Division hold oral proceedings to receive public comment on the Notice of Proposed Rulemaking on March 11, 2019, at 10:00 a.m. or as soon as practicable thereafter, in Room 222 at the Commission's offices in Tucson, Arizona and on March 15, 2019, at 10:00 a.m. or as soon as practicable thereafter, in Hearing Room No. 1 at the Commission's offices in Phoenix, Arizona.

IT IS FURTHER ORDERED that interested parties be requested to provide initial comments concerning the Notice of Proposed Rulemaking by filing written comments with the Commission's Docket Control by March 4, 2019; be requested to provide comments in response to other interested parties' comments by filing written comments with the Commission's Docket Control by March 11, 2019; and be permitted to provide oral comments at the proceedings to be held on March 11 and 15, 2019.

IT IS FURTHER ORDERED that the Utilities Division shall ensure that the Preamble to the Notice of Proposed Rulemaking conforms with the requirements of A.R.S. § 41-1001(14) and provides notice of the date, time, and location of the oral proceedings required herein.

IT IS FURTHER ORDERED that the Utilities Division shall ensure that the Preamble to the Notice of Proposed Rulemaking states that (1) written comments on the Notice of Proposed Rulemaking should include a reference to Docket No. RE-00000A-07-0609; (2) initial written comments should be filed with the Commission's Docket Control by March 4, 2019; (3) written

1 comments in response to other interested parties' comments should be filed with the Commission's
2 Docket Control by March 11, 2019; and (4) oral comments may be provided at the proceedings to
3 be held on March 11 and 15, 2019.

4 IT IS FURTHER ORDERED that the Utilities Division shall ensure that any written
5 comments filed with the Utilities Division rather than the Commission's Docket Control are filed
6 with the Commission's Docket Control.

7 IT IS FURTHER ORDERED that the Utilities Division shall, by February 1, 2019, file with
8 the Commission's Docket Control an Economic, Small Business, and Consumer Impact Statement
9 that addresses the economic impacts of the recommended changes to the rules as included in Exhibit
10 A and conforms to the requirements of A.R.S. § 41-1057(2)

11 IT IS FURTHER ORDERED that the Utilities Division shall, on or before March 20, 2019,
12 file with the Commission's Docket Control a document including (1) a summary of any written
13 comments filed by interested persons between the effective date of this Order and March 11, 2019,
14 and (2) the Utilities Division's responses to those comments.

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1 IT IS FURTHER ORDERED that the Utilities Division shall, by April 5, 2019, file with the
2 Commission's Docket Control a document including (1) a summary of all written comments filed
3 by interested persons after March 11, 2019, and oral comments received at the oral proceedings in
4 this matter; (2) the Utilities Division's responses to those comments; and (3) a revised Economic,
5 Small Business, and Consumer Impact Statement or a memorandum explaining why no revision of
6 the prior filed Economic, Small Business, and Consumer Impact Statement is necessary.

7 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

8
9 **BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

10
11 _____
12 CHAIRMAN FORESE

COMMISSIONER DUNN

13
14 COMMISSIONER TOBIN

COMMISSIONER OLSON

COMMISSIONER BURNS

15
16 IN WITNESS WHEREOF, I, TED VOGT, Executive Director
17 of the Arizona Corporation Commission, have hereunto, set
18 my hand and caused the official seal of this Commission to be
19 affixed at the Capitol, in the City of Phoenix, this _____ day
20 of _____, 2018.

21 _____
22 MATTHEW J. NEUBERT
23 INTERIM EXECUTIVE DIRECTOR

24 DISSENT: _____

25 DISSENT: _____

26 EOA:PCL:red/WVC
27
28

1 Arizona Corporation Commission - Rulemaking
2 Docket No. RE-00000A-07-0609

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TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION
CHAPTER 2. CORPORATION COMMISSION - FIXED UTILITIES

ARTICLE 26. INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES

- R14-2-2601. Definitions
- R14-2-2602. Applicability
- R14-2-2603. Types of Generating Facilities
- R14-2-2604. Customer Rights and Responsibilities
- R14-2-2605. Utility Rights and Responsibilities
- R14-2-2606. Easements and Rights-of-Way
- R14-2-2607. Insurance
- R14-2-2608. Non-Circumvention
- R14-2-2609. Designation of Contact Persons
- R14-2-2610. Minor Modifications
- R14-2-2611. Certification
- R14-2-2612. No Additional Requirements
- R14-2-2613. Disconnection from or Reconnection with the Distribution System
- R14-2-2614. Application and Generating Facility General Requirements
- R14-2-2615. Screens
- R14-2-2616. Pre-Application Report
- R14-2-2617. Level 1 Super Fast Track
- R14-2-2618. Level 2 Fast Track
- R14-2-2619. Level 3 Study Track
- R14-2-2620. Supplemental Review
- R14-2-2621. Utility Site Inspection; Approval for Parallel Operation
- R14-2-2622. Interconnection to a Secondary Spot Network System
- R14-2-2623. Expedited Interconnection Process
- R14-2-2624. Disconnect Switch Requirements
- R14-2-2625. Advanced Inverter Requirements
- R14-2-2626. Utility Reporting Requirements
- R14-2-2627. Electric Cooperatives

R14-2-2601. Definitions

In this Article, unless otherwise specified:

1. "AC" means alternating current.
2. "Applicant" means a Customer or Representative who submits an Interconnection Application pursuant to this Article.
3. "Application" means the standard form or format for an Applicant to apply to a Utility for Interconnection of a Generating Facility with the Distribution System.
4. "Backfeed" means to energize a section of a Utility electric system with a Generating Facility.
5. "Calendar Day" means any day including Saturday, Sunday, or a Federal or State Holiday.
6. "Certified Equipment" means a specific generating and protective equipment system or systems certified as meeting the requirements in R14-2-2611 relating to testing, operation, safety, and reliability by an NRTL.
7. "Clearance" means documentation from a Utility stating that a line or equipment is disconnected from all known sources of power and tagged; that for safety purposes all proper precautionary measures have been taken; and that workers may proceed to inspect, test, and install ground on the circuit.
8. "CFR" means Code of Federal Regulations.
9. "Commission" means the Arizona Corporation Commission.
10. "Customer" means an electric consumer applying to connect a Generating Facility on the consumer's side of the Utility meter, whether an Exporting System, a Non-Exporting System, or an Inadvertent Export System.
11. "DC" means direct current.
12. "Disconnect Switch" means a device that:
 - a. Is installed and maintained for a Generating Facility by the Customer;
 - b. Is a visible-open, manual, gang-operated, load break disconnect device;
 - c. Is capable of being locked in a visible open position by a standard Utility padlock that will completely isolate the Generating Facility from the Distribution System; and
 - d. If the voltage of the Generating Facility is over 500 volts, is capable of being grounded on the Utility side.

13. "Distributed Generation" means any type of Customer electrical generator, solid-state or static inverter, or Generating Facility interconnected with the Distribution System that either can be operated in electrical parallel with the Distribution System or can feed a Customer load that can also be fed by the Distribution System.
14. "Distribution System" means the infrastructure constructed, maintained, and operated by a Utility to deliver electric service at the distribution level (69 kV or less) to retail consumers.
15. "Electric Cooperative" means a Utility that is:

 - a. Not operated for profit;
 - b. Owned and controlled by its members; and
 - c. Operating as a public service company in this state.
16. "Exporting System" means any type of Generating Facility that is designed to regularly Backfeed the Distribution System.
17. "Facilities Study" means a comprehensive analysis of the actual construction needed to take place based on the outcome of a System Impact Study.
18. "Fault Current" means the level of current that can flow if a short circuit is applied to a voltage source.
19. "Feasibility Study" means a preliminary review of the potential impacts on the Distribution System that will result from a proposed Interconnection.
20. "Generating Facility" means all or part of a Customer's electrical generator(s), energy storage system(s), or any combination of electrical generator(s) and storage system(s), together with all inverter(s) and protective, safety, and associated equipment necessary to produce electric power at the Customer's facility; this includes solid-state or static inverters, induction machines, and synchronous machines.
21. "Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods, and acts that, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimal practice, method, or act to the exclusion of all others, but rather to include practices, methods, or acts generally accepted in the region at the relevant time.

22. "IEEE" means the Institute of Electrical and Electronics Engineers, Inc.
23. "Inadvertent Export" means the unplanned, uncompensated transfer of electrical energy from a Generating Facility to the Distribution System across the Point of Interconnection.
24. "Interconnection" means the physical connection of a Generating Facility to the Distribution System.
25. "Interconnection Agreement" means an agreement, signed between the Utility and the Customer, covering the terms and conditions governing the Interconnection and operation of the Generating Facility with the Utility and including any appendices to the agreement.
26. "Interconnection Facilities" means the electrical wires, switches, and related equipment that are required, in addition to the facilities required to provide electric distribution service to a Customer, to allow Interconnection. Interconnection Facilities may be located on either side of the Point of Interconnection as appropriate to their purpose and design.
27. "Interconnection Manual" means a separate document developed and maintained by a Utility, made available on the Utility's web site, and approved by the Commission, which contains detailed technical, safety, and protection requirements necessary to interconnect a Generating Facility to the Distribution System.
28. "Interconnection Study" means a study that may be undertaken by a Utility (or a Utility-designated third party) in response to the Utility's receipt of a completed Application. An Interconnection Study may include:
- a. A Feasibility Study;
 - b. A System Impact Study;
 - c. A Facilities Study; and
 - d. Any additional analysis required by the Utility.
29. "Islanding" means a condition in which a portion of the Distribution System is energized solely by one or more local electric power systems throughout the associated Point of Interconnection while that portion of the Distribution System is electrically separated from the rest of the Distribution System. Islanding can be either intentional (planned) or unintentional (unplanned).
30. "Jurisdictional Electric Inspection Agency" means the governmental authority having jurisdiction to inspect and approve the installation of a Generating Facility.
31. "kW" means kilowatt.

32. "Maximum Capacity" means the nameplate AC capacity of a Generating Facility or if a Utility and Customer reach an agreement regarding the operating characteristics of the Generating Facility that limits the power transferred across the Point of Interconnection to the Distribution System, only the power transferred across the Point of Interconnection to the Distribution System.
33. "MW" means megawatt.
34. "Non-Exporting System" means a system in which there is no designed, regular export of power from the Generating Facility to the Distribution System.
35. "NRTL" means a Nationally Recognized Testing Laboratory recognized by the U.S. Occupational Safety and Health Administration.
36. "Parallel Operation" means the operation of a Generating Facility that is electrically interconnected to a bus common with the Distribution System, either on a momentary or continuous basis.
37. "Protective Functions" means the equipment, hardware, or software in a Generating Facility that protects against Unsafe Operating Conditions.
38. "Point of Interconnection" means the physical location where the Utility's service conductors are connected to the Customer's service conductors to allow Parallel Operation of the Generating Facility with the Distribution System.
39. "QF" or "Qualifying Facility" means any cogeneration or small power production facility that meets the criteria for size, fuel use, efficiency, and ownership set forth in 18 CFR 292.203 (April 1, 2018), with no future editions or amendments, which is incorporated by reference; on file with the Commission; and published by and available from the U.S. Government Publishing Office, 732 North Capitol Street, NW Washington, DC 20401-0001 and at <https://www.gpo.gov/fdsys/>.
40. "Relay" means an electric device that is designed to interpret input conditions in a prescribed manner and, after specified conditions are met, to respond and cause contact operation or similar abrupt change in associated electric control circuits.
41. "Representative" means an agent of the Customer who is designated by the Customer and is acting on the Customer's behalf.
42. "Scoping Meeting" means an initial review meeting between a Utility and a Customer or Representative during which a general overview of the proposed Generating Facility design is

discussed, and the Utility provides general information on system conditions at the proposed Point of Interconnection.

43. "Secondary Spot Network System" means an AC power Distribution System meeting the criteria in R14-2-2622.

44. "System Impact Study" means a full engineering review of the impact on the Distribution System from a Generating Facility, including power flow, Utility system protective device coordination, generator protection schemes (if not Certified Equipment), stability, voltage fluctuations, frequency impacts, and short circuit study.

45. "UL 1741" means the Underwriters Laboratories Inc. Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources (February 15, 2018), with no future editions or amendments, which is incorporated by reference; on file with the Commission; and published by and available from Underwriters Laboratories Inc., 151 Eastern Avenue Bensenville, IL 60106-3072 and through <https://standardscatalog.ul.com>.

46. "UL 1741SA" means the approved supplemental amendment of UL 1741 that defines the manufacturing (including software) and product testing requirements for advanced inverters.

47. "Unsafe Operating Conditions" means conditions that, if left uncorrected, could result in any of the following:

1. Harm to personnel;
2. Damage to equipment;
3. An adverse effect to the safe operation of the Distribution System; or
4. Operation of the Generating Facility outside pre-established parameters required by the Interconnection Agreement.

48. "Utility" means an electric distribution company that constructs, operates, and maintains its Distribution System for the receipt and delivery of electricity and that is a public service corporation under Arizona Constitution, Article 15, § 2.

R14-2-2602. Applicability

These rules apply to a Generating Facility operating (or to be operated) in parallel with a Distribution System of a Utility, subject to Commission jurisdiction after the effective date of this Article.

R14-2-2603. Types of Generating Facilities

A. A Customer may operate a Generating Facility as an Exporting System, a Non-Exporting System, or an Inadvertent Export System.

B. An Applicant shall declare the Maximum Capacity of a Generating Facility in its Application.

C. If an Applicant claims a Generating Facility is a Non-Exporting System:

1. The Utility may require an independent third-party certification ensuring that the system meets the following standards:

a. Is able to supply part or all of the Customer's load continuously or during a Utility power outage;

b. Is sized such that the export of power is not possible or includes control functions to prevent the export of power; and

c. Has control functions that are listed by an NRTL for the purpose as used and are also inspected and approved by the Customer's Jurisdictional Electric Inspection Agency; and

2. The Applicant shall ensure that the Generating Facility utilizes any combination of equipment, hardware, or software, as specified by the Utility in its Interconnection Manual, to prevent the transfer of electrical energy to the Distribution System.

D. If an Applicant claims a Generating Facility is an Inadvertent Export system that does not utilize only UL 1741 certified or UL 1741SA-listed grid support non-islanding inverters:

1. The Utility may require additional protective functions and equipment to detect Distribution System faults;

2. The amount of Inadvertent Export exported to the Distribution System shall be limited to the lesser of the following values:

a. 50% of the Generating Facility's Maximum Capacity;

b. 10% of the continuous conductor rating in watts at 0.9 power factor for the lowest rated feeder conductor upstream of the Generating Facility; or

c. 500 kW; and

3. The expected frequency of inadvertent export events shall be less than two occurrences per 24-hour period.

E. If an Applicant claims a Generating Facility is an Inadvertent Export system that utilizes only UL 1741 certified or UL 1741SA-listed grid support non-islanding inverters, the Generating Facility shall:

1. Utilize control functions that limit the export of electrical power to the Distribution System;

2. Have a Maximum Capacity of 500 kVA or less;
3. Have a magnitude of Inadvertent Export no more than 100 kVA;
4. Have a duration of Inadvertent Export of power of less than 30 seconds for any single event;
5. Monitor that its total energy export per month is maintained to be no more than its Maximum Capacity multiplied by 0.1 hours per day over a rolling 30-day period (e.g., a 100 kVA gross nameplate capacity Generating Facility would have a maximum energy export per 30-day month of 300 kWh);
6. Disconnect the Generating Facility from the Distribution System in the event of an Inadvertent Export, ceasing to energize the Distribution System or halting energy production, within two seconds after the period of uninterrupted export exceeds 30 seconds or the magnitude of export exceeds 100 kVA; and
7. Enter a safe operation mode, where Inadvertent Export events cannot occur, upon failure of the control or inverter system for more than 30 seconds, whether from loss of control signal, loss of control power, or a single component failure or related control sensing of the control circuitry.

R14-2-2604. Customer Rights and Responsibilities

A. A Customer has the following rights:

1. To designate a Representative to act on the Customer's behalf;
2. To submit an Application to interconnect a Generating Facility with a Distribution System;
3. To expect prompt and professional responses from a Utility during the Interconnection process;
4. To expect detailed and itemized good faith estimates of cost from the Utility; and
5. To expect outlines, supporting data, and justification for proposed work before the Utility undertakes any studies or system upgrades to accommodate the Generating Facility.

B. A Customer shall ensure that:

1. The Generating Facility meets or exceeds all minimum Interconnection, safety, and protection requirements outlined in this Article and the Utility's Interconnection Manual;
2. The Generating Facility meets all applicable construction codes, safety codes, electric codes, laws, and requirements of government agencies having jurisdiction;
3. The Generating Facility's Certified Equipment is installed and operated in a manner that protects the Generating Facility, Utility personnel, the public, and the Distribution System from harm;

4. The Generating Facility design, installation, maintenance, and operation minimize the likelihood of causing a malfunction in, damaging, or otherwise impairing the Distribution System;
5. The Generating Facility does not adversely affect the quality of service to other Utility consumers;
6. The Generating Facility does not hamper efforts to restore a feeder to service when a Clearance is required;
7. The Generating Facility is maintained in accordance with applicable manufacturers' maintenance schedules; and
8. The Utility is notified of any emergency or hazardous condition or occurrence involving the Generating Facility that could affect safe operation of the Distribution System.

C. A Customer shall pay for; lease or own; and be responsible for designing, installing, and operating all Interconnection Facilities located on the Customer's side of the Point of Interconnection.

D. A Customer shall ensure that Interconnection Facilities:

1. Are located on the Customer's premises; and
2. To enable delivery of power from the Generating Facility to the Distribution System at the Point of Interconnection, include:
 - a. Necessary equipment for:
 - i. Connection;
 - ii. Transformation;
 - iii. Switching;
 - iv. Protective relaying;
 - v. Metering;
 - vi. Communication; and
 - vii. Safety requirements.
 - b. A Disconnect Switch; and
 - c. Any other requirements outlined in this Article or specified by the Utility in its Interconnection Manual.

E. A Customer interconnecting a Generating Facility with the Distribution System shall:

1. Sign an Interconnection Agreement and all other applicable purchase, supply, and standby agreements; and
2. Comply with all applicable tariffs, rate schedules, and Utility service requirements.

F. A Customer shall not interconnect or cause Interconnection of a Generating Facility to the Distribution System without first executing an Interconnection Agreement with the Utility that operates the Distribution System.

R14-2-2605. Utility Rights and Responsibilities

A. A Utility shall interconnect a Generating Facility to the Distribution System, subject to the requirements of this Article and of the Utility's Interconnection Manual.

B. A Utility has the right to expect prompt, reasonable, and professional responses from a Customer during the Interconnection process.

C. A Utility shall require that an interconnected Generating Facility:

1. Not present any hazards to Utility personnel, other Utility consumers, or the public;
2. Minimize the possibility of damage to the Utility and to other Utility consumers' equipment;
3. Not adversely affect the quality of service to other Utility consumers; and
4. Not hamper efforts to restore a feeder to service when a Clearance is required.

D. A Utility shall notify a Customer if there is reason to believe that operation of the Customer's Generating Facility has caused disruption or deterioration of service to other Utility consumers served from the Distribution System or that such operation has caused damage to the Distribution System.

E. A Utility shall make its Interconnection Manual, standard Application, and Interconnection Agreements readily available to an Applicant in print and online formats.

F. Following the receipt of an Application, a Utility shall review the Generating Facility to ensure it complies with the applicable screens in R14-2-2615. If the Generating Facility design does not comply with the applicable screens in R-14-2-2615, an Interconnection Study may be required. Before the Utility undertakes any Interconnection Study or system upgrades that will be charged to the Applicant, the Utility shall provide the Applicant a detailed estimate of the cost, an outline of the proposed work, supporting data, and justification for the proposed work. If the results of an Interconnection Study necessitate additional Interconnection Facilities or upgrades, the Utility shall provide written notice to the Applicant of the Utility's intent to install the Interconnection Facilities or upgrades. The Applicant shall pay the Utility for Interconnection Facilities or upgrades identified in the Interconnection Study except for those unrelated to the Generating Facility installation. The Utility shall provide the results of the Interconnection Study to the Applicant.

G. A Utility may not disapprove Interconnection of a Generating Facility that satisfies the requirements of this Article and the Utility's Interconnection Manual.

H. If additional Interconnection Facilities or upgrades are needed to accommodate a Generating Facility, and the Interconnection Facilities or upgrades will benefit the grid, the Utility shall reduce the charge of the Interconnection Facilities or upgrades to the Customer by the amount of benefits to the grid that are readily quantifiable by the Utility. A Utility shall not reject an Application on the basis of existing Distribution System conditions that are deficient, or charge a Customer for Interconnection Facilities or upgrades that are overdue or that will soon be required to ensure compliance with Good Utility Practice.

I. A Utility shall process each Application on a nondiscriminatory basis.

R14-2-2606. Easements and Rights-of-Way

A. Where an easement or right-of-way does not exist, but is required by a Utility to accommodate Interconnection, a Customer shall provide a suitable easement or right-of-way, in the Utility's name, on the premises owned, leased, or otherwise controlled by the Customer. If the required easement or right of way is on another's property, the Customer shall obtain and provide to the Utility a suitable easement or right-of-way, in the Utility's name, at the Customer's expense and in sufficient time to comply with Interconnection Agreement requirements.

B. A Utility shall use reasonable efforts to utilize existing easements to accommodate Interconnection.

C. A Utility shall use reasonable efforts to assist a Customer in securing necessary easements at the Customer's expense.

R14-2-2607. Insurance

A. A Utility shall not require a Customer to provide general liability insurance coverage as a condition for Interconnection and shall not require that the Customer negotiate any policy or renewal of any policy covering any liability through a particular insurance provider, agent, solicitor, or broker.

B. The provision in subsection (A) does not waive or otherwise foreclose any rights a Utility may have to pursue remedies at law against a Customer to recover damages.

R14-2-2608. Non-Circumvention

A. A Utility shall not directly or through an affiliate use knowledge of proposed Distributed Generation projects submitted to the Utility for Interconnection or study to initiate competing proposals to the

Customer that offer discounted rates in return for not installing the Distributed Generation, or to offer the Customer competing Distributed Generation projects.

B. A Customer may share with a Utility or its affiliates information in the Customer's possession regarding a potential Distributed Generation project and may use such information to negotiate a discounted rate or other mutually beneficial arrangement with a Utility or its affiliate.

C. A Utility may inform a Customer of any existing or pending (awaiting approval by the Commission) rate schedule that may economically benefit, economically disadvantage, or otherwise affect the Customer's Distributed Generation project.

R14-2-2609. Designation of Contact Persons

A. Each Utility shall:

1. Designate a person or persons who will serve as the Utility's contact for all matters related to Distributed Generation Interconnection;
2. Identify to the Commission in its Interconnection Manual each designated Distributed Generation Interconnection contact person or persons; and
3. Provide convenient access through its website to the name, telephone number, mailing address, and email address for each Distributed Generation Interconnection contact person.

B. Each Applicant applying for Interconnection shall designate a contact person or persons and provide to the Utility the name, telephone number, mailing address, and email address for each contact person.

R14-2-2610. Minor Modifications

A Utility shall not reject or declare incomplete and require resubmission of a submitted Application if minor modifications must be made to the design of the Generating Facility or to other information on the Application while the Application is being reviewed by the Utility.

R14-2-2611. Certification

A. To qualify as Certified Equipment, Generating Facility equipment proposed for use separately or packaged with other equipment in an Interconnection system shall:

1. Comply with the applicable codes, guides, and standards referenced in the Utility Interconnection Manual;
2. Comply with the relevant codes and standards used by an NRTL to test and certify Interconnection equipment; and
3. Be labeled and publicly listed as certified by the NRTL at the time of Application submission.

B. If Certified Equipment includes only interface components (switchgear, inverters, or other interface devices), a Customer shall show, upon request from the Utility, that the Generating Facility is compatible with the interface components and consistent with the testing and listing specified for the Interconnection equipment.

C. A Customer is not required to ensure that equipment provided by the Utility is Certified Equipment.

R14-2-2612. No Additional Requirements

If a Generating Facility complies with all applicable requirements of R14-2-2611, complies with the screens listed in R14-2-2615, and complies with the Utility's Interconnection Manual, a Utility shall not require the Customer to install additional controls, or to perform or pay for additional tests, in order to obtain approval to interconnect, unless the Customer agrees to do so or the Commission so requires. A Utility may install additional equipment or perform additional testing at its own expense.

R14-2-2613. Disconnection from or Reconnection with the Distribution System

A. A Utility may disconnect a Generating Facility from the Distribution System under the following conditions:

1. Upon expiration or termination of the Interconnection Agreement with a Customer, in accordance with the terms of the Interconnection Agreement;
2. Upon determining that the Generating Facility is not in compliance with the technical requirements found within the Utility's Interconnection Manual;
3. Upon determining that continued Interconnection of the Generating Facility will endanger system operations, persons, or property, for the time needed to make immediate repairs on the Distribution System;
4. To perform routine maintenance, repairs, and system modifications; and
5. Upon determining that an Interconnection Agreement is not in effect for the Generating Facility.

B. A Utility and a Customer shall cooperate to restore the Generating Facility and the Distribution System to their normal operating states as soon as practicable.

C. A Customer may temporarily disconnect the Generating Facility from the Distribution System at any time. Such temporary disconnection shall not constitute a termination of the Interconnection Agreement unless the Customer has so specified in writing.

D. Except in the case of a disconnection under subsection (A)(3), a Utility shall provide notice to a Customer before disconnecting the Generating Facility. The Utility shall provide the Customer notice

at least three calendar days prior to the impending disconnection and shall include in the notice the date, time, and estimated duration of the disconnection.

E. When a Generating Facility is disconnected under subsection (A)(2):

1. The Customer shall notify the Utility when the Generating Facility is restored to compliance with technical requirements;
2. The Utility shall, within five calendar days after receiving the Customer's notice, have an inspector verify the compliance; and
3. Upon verifying the compliance, the Utility shall, in coordination with the Customer, reconnect the Generating Facility.

F. A Utility shall reconnect a Generating Facility as quickly as practicable after determining that the reason for disconnection is remedied.

G. An Interconnection Agreement shall continue in effect after disconnection or termination of electric service to the extent and for the period necessary to allow or require the Utility or Customer to fulfill rights or obligations that arose under the agreement, notwithstanding subsection (H)(4). An Interconnection Agreement cannot be for a term less than the expected life of the Generating Facility, unless mutually agreed upon by the Customer and the Utility.

H. An Interconnection Agreement shall become effective on the effective date specified in the Interconnection Agreement and shall remain in effect thereafter unless and until:

1. It is terminated by mutual agreement of the Utility and Customer;
2. It is replaced by another Interconnection Agreement, with mutual consent of the Utility and Customer;
3. It is terminated by the Utility or the Customer due to a breach or default of the Interconnection Agreement; or
4. The Customer terminates Utility electric service, vacates or abandons the property on which the Generating Facility is located, or terminates or abandons the Generating Facility, without the Utility's agreement.

I. An Interconnection Agreement shall not be terminated in the event of the sale or lease of the property owned by the Customer. If the ownership of a Generating Facility changes, the Interconnection Agreement will remain in effect so long as the operation, as specified in the Interconnection

Agreement, of the Generating Facility remains unchanged. The Customer shall provide notice to the Utility within seven calendar days in the event of a change in the ownership of the Generating Facility.

J. Upon termination of an Interconnection Agreement:

1. The Customer shall ensure that the electrical conductors connecting the Generating Facility to the Distribution System are immediately lifted and permanently removed, to preclude any possibility of interconnected operation in the future; and
2. The Utility may inspect the Generating Facility to verify that it is permanently disconnected.

R14-2-2614. Application and Generating Facility General Requirements

A. A Customer desiring to interconnect a Generating Facility to the Distribution System that is not a Non-Exporting inverter-based energy storage Generating Facility or an Inadvertent Export Generating Facility with a Maximum Capacity of 20 kW or less shall apply to the Utility for Interconnection as provided in this Section.

B. An Applicant shall submit an Application on a form provided by the Utility, or according to a format provided by the Utility, along with the following:

1. All supplemental information and documents required by the Utility, which shall be noted on the Utility's Application or Application instructions;
2. An executed Interconnection Agreement, if required by the Utility; and
3. An initial Application or processing fee, if a tariff containing such a fee is approved for the Utility by the Commission.

C. Upon request, a Utility shall provide an Applicant with sample diagrams that indicate the preferred level of detail and type of information required for a typical inverter-based system.

D. Within seven calendar days after receiving an Application, a Utility shall review the Application and provide the Applicant notice:

1. That the Application satisfies all requirements under subsection (B); or
2. That the Application does not satisfy one or more requirements under subsection (B), in which case:
 - a. The Utility shall specify the additional information or documents required;
 - b. The Applicant shall submit the specified information or documents; and
 - c. The Application may be deemed withdrawn if the Applicant does not submit the required information or documents within 30 calendar days.

E. A Generating Facility shall comply with the following general requirements:

1. If inverter based, each inverter shall be UL 1741SA-listed and certified, as specified in R14-2-2611; and meet the shutdown protective functions (under/over voltage, under/over frequency, and anti-Islanding) specified in IEEE 1547, IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems, as revised (May 21, 2014), with no future editions or amendments, which is incorporated by reference; on file with the Commission; and published by and available from the Institute of Electrical and Electronic Engineers, Inc., 3 Park Avenue, 17th Floor, New York, New York 10016, and through <http://ieeexplore.ieee.org>;
2. The Generating Facility shall meet all applicable codes and standards; and
3. The Generating Facility shall comply with the Utility's Interconnection Manual and Interconnection Agreement requirements.

R14-2-2615. Screens

- A. For Interconnection of a proposed Generating Facility to a distribution circuit, the aggregated generation on the circuit, including the proposed Generating Facility, shall not exceed 15% of the total circuit annual peak load as most recently measured at the substation or on the line section (if available), or the circuit hosting capacity limit; whichever is greater. Non-Exporting Systems, regardless of system size, and Inadvertent Export systems with a Maximum Capacity of 20 kW and under shall not be subject to this subsection.**
- B. A proposed Generating Facility shall not contribute more than 10% to a distribution circuit's maximum fault current at any point on the Distribution System, including during normal contingency conditions that may occur due to reconfiguration of the feeder or the distribution substation.**
- C. A proposed Generating Facility, in aggregate with other generation on a distribution circuit, shall not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or consumer equipment on the system, to exceed 90% of the short circuit interrupting capability; and Interconnection shall not be proposed for a circuit that already exceeds 90% of the short circuit interrupting capability.**
- D. A proposed Generating Facility shall be interconnected to the Distribution System as shown in the table below:**

<u>Primary Distribution Line Configuration</u>	<u>Interconnection to Primary Distribution Line</u>

<u>Three-phase, three wire</u>	<u>If a three-phase or single-phase Generating Facility, Interconnection shall be phase-to-phase</u>
<u>Three-phase, four wire</u>	<u>If a three-phase (effectively grounded) or single-phase Generating Facility, Interconnection shall be line-to-neutral</u>

- E. If a proposed Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Generating Facility, shall not exceed 75% of the service transformer rating.
- F. If a proposed Generating Facility is single-phase and is to be interconnected on a transformer center tap neutral of a 240-volt service, its addition shall not create an imbalance between the two sides of the 240-volt service of more than 20% of the nameplate rating of the service transformer.
- G. A proposed Generating Facility, in aggregate with other generation interconnected to the distribution low-voltage side of a substation transformer feeding the distribution circuit where the Generating Facility would interconnect, shall not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission voltage level busses from the Point of Interconnection). Non-Exporting Systems, regardless of system size, and Inadvertent Export systems with a Maximum Capacity of 20 kW and under shall not be subject to this subsection.
- H. A proposed Generating Facility's Point of Interconnection shall not be on a transmission line.
- I. A proposed Generating Facility shall not exceed the capacity of the Customer's existing electrical service unless there is a simultaneous request for an upgrade to the Customer's electrical service or the Generating Facility is configured never to inject onto the feeder power that exceeds the capacity of the electrical service.
- J. If a proposed Generating Facility is non-inverter based, the Generating Facility must comply with the Protective Function requirements and any additional Utility Interconnection requirements, which shall be specified by the Utility in its Interconnection Manual.

R14-2-2616. Pre-Application Report

- A. An Applicant requesting a Pre-Application Report shall submit to a Utility:
1. The Applicant's contact information (name, address, phone, and email);

2. A proposed Point of Interconnection, sufficiently identified by latitude and longitude, site map, street address, meter number, account number, or some combination of those sufficient to identify the location of the Point of Interconnection;
2. A description of the proposed generation technology and fuel source; and
3. A non-refundable processing fee, if a tariff containing such a fee is approved for the Utility by the Commission.

B. An Applicant requesting a Pre-Application Report shall understand that:

1. The existence of "available capacity" does not mean that the Interconnection of a Generating Facility with a nameplate capacity that is equivalent to the available capacity may be completed without impacts, because the Pre-Application Report does not address all of the variables studied as part of the Interconnection review process;
2. The Distribution System is dynamic and subject to change; and
3. Data provided in the Pre-Application Report may become outdated and may not be useful at the time an Application is submitted.

C. Within 21 calendar days of receipt of a completed Pre-Application Report request, a Utility shall provide a Pre-Application Report, which shall include the following information, as available:

1. The total capacity (MW) of the substation/area bus or bank and circuit likely to serve the proposed site;
2. The allocated capacity (MW) of the substation/area bus or bank and circuit likely to serve the proposed site;
3. The queued capacity (MW) of the substation/area bus or bank and circuit likely to serve the proposed site;
4. The available capacity (MW) of the substation/area bus or bank and circuit most likely to serve the proposed site;
5. Whether the proposed Generating Facility is located on an area, spot, or radial network;
6. The substation nominal distribution voltage or nominal transmission voltage, if applicable;
7. The nominal distribution circuit voltage at the proposed site;
8. The approximate circuit distance between the proposed site and the substation;
9. The peak load estimate and minimum load data of each relevant line section, when available;

10. The number of protective devices and voltage regulating devices between the proposed site and the substation/area;

11. Whether three-phase power is available at the site and, if not, the distance of the site from three-phase service;

12. The limiting conductor rating from the proposed Point of Interconnection to the distribution substation; and

13. Based on the proposed Point of Interconnection, any existing or known constraints, such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

D. A Utility shall not be required to generate data for a Pre-Application Report and may include only pre-existing data. An Applicant request for a Pre-Application Report does not obligate the Utility to conduct a study or other analysis of the proposed project in the event that pre-existing data is not available. If a Utility cannot complete all or some of a Pre-Application Report due to lack of available data, the Utility shall provide the Applicant a Pre-Application Report that includes the information that is available and identifies the information that is unavailable. Notwithstanding any provisions of this Section, a Utility shall, in good faith, provide Pre-Application Report data that represents the best available information at the time of reporting.

E. A Utility may charge a fee for a Pre-Application Report if a tariff containing such a fee is approved for the Utility by the Commission.

R14-2-2617. Level 1 Super Fast Track

A. A Customer interconnecting an inverter-based Generating Facility with a Maximum Capacity of 20 kW or less, which only uses Certified Equipment, shall apply for Interconnection under the Level 1 Super Fast Track Application process.

B. To qualify for Level 1 Super Fast Track, the Generating Facility shall comply with R14-2-2615(A), (E), and (F).

C. The Level 1 Super Fast Track shall proceed as follows:

1. Within 21 calendar days following provision of notice under R14-2-2614(D)(1), the Utility shall review the Application and notify the Applicant of one of the following determinations:

- a. The Generating Facility design satisfies R14-2-2615(A), (E), and (F) and meets all Interconnection requirements and the Application is therefore deemed complete and approved for Interconnection; or
 - b. The Generating Facility design does not satisfy one or more of the requirements listed in R14-2-2615(A), (E), or (F) or does not meet one or more of the Utility's Interconnection requirements, which shall be specified, and the Application is therefore deemed incomplete and not approved for Interconnection.
- 2. If the Utility's determination falls under subsection (C)(1)(b), the Applicant shall notify the Utility within 30 calendar days whether it wishes to proceed with the Interconnection.
 - a. Except as provided in subsection (D), if the Applicant does not provide notice within 30 calendar days that it wishes to proceed with the Interconnection, the Application may be considered withdrawn.
 - b. If the Applicant wishes to proceed with the Interconnection, the Applicant shall submit to the Utility' within 30 calendar days, any Utility-specified additional information or modifications to the Generating Facility, along with one of the following:
 - i. A request that the Utility continue to process the Application under this section; or
 - ii. A request that the Utility process the Application in accordance with R14-2-2620.
- 3. Once an Application is approved, the Generating Facility shall be subject to R14-2-2621.
- D. An Applicant may, within 30 calendar days after receiving notice under subsection (C)(1)(b), submit a request for an extension of the 30-day period allowed for submissions under subsection (C)(2)(b).
- E. After receiving a submission under subsection (C)(2)(b), a Utility shall again follow the process of subsection (C).
- F. A Utility may not charge a fee for an additional review under subsection (C), unless a tariff containing such a fee is approved for the Utility by the Commission.
- G. A Customer shall have the responsibility for any costs of Utility facilities and equipment modifications necessary to accommodate the Customer's Interconnection.
- H. If the Generating Facility's operating characteristics can be modified such that improvements to the Distribution System are reduced or not required, and both the Utility and Customer agree on the operating characteristics, the Customer shall have the opportunity to modify the Generating Facility's operating characteristics to reduce facility costs.

R14-2-2618. Level 2 Fast Track

- A. A Customer interconnecting a Generating Facility with a Maximum Capacity of less than 2 MW, excluding a Generating Facility processed in accordance with R14-2-2617, shall apply for Interconnection under the Level 2 Fast Track Application process.**
- B. To qualify for the Level 2 Fast Track, the Generating Facility shall comply with R14-2-2615(A) through (J).**
- C. The Level 2 Fast Track shall proceed as follows:**
- 1. Within 28 calendar days following provision of notice under R14-2-2614(D)(1), the Utility shall review the Application and notify the Applicant of one of the following determinations:**
 - a. The Generating Facility design satisfies R14-2-2615(A) through (J) and meets all Interconnection requirements and the Application is therefore deemed complete and approved for Interconnection; or**
 - b. The Generating Facility design does not satisfy one or more of the requirements listed in subsections R14-2-2615(A) through (J) or does not meet one or more of the Utility's Interconnection requirements, which shall be specified, and the Application is therefore deemed incomplete and not approved for Interconnection.**
 - 2. If the Utility's determination falls under subsection (C)(1)(b), the Applicant shall notify the Utility within 30 calendar days whether it wishes to proceed with the Interconnection.**
 - a. Except as provided in subsection (D), if the Applicant does not provide notice within 30 calendar days that it wishes to proceed with the Interconnection, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn.**
 - b. If the Applicant wishes to proceed with the Interconnection, the Applicant shall submit to the Utility' within 30 calendar days any Utility-specified additional information or modifications to the Generating Facility, along with one of the following:**
 - i. A request that the Utility continue to process the Application under this section;**
 - ii. A request that the Utility process the Application in accordance with R14-2-2619; or**
 - iii. A request that the Utility process the Application in accordance with R14-2-2620.**
 - 3. Once an Application is approved, the Generating Facility shall be subject to R14-2-2621.**
- D. An Applicant may, within 30 calendar days after receiving notice under subsection (C)(1)(b), submit a request for an extension of the 30-day period allowed for submissions under subsection (C)(2)(b).**

- E. After receiving a submission under subsection (C)(2)(b), a Utility shall again follow the process under subsection (C).
- F. A Utility may not charge a fee for an additional review under subsection (C), unless a tariff containing such a fee is approved for the Utility by the Commission.
- G. A Customer shall have the responsibility for any costs of Utility facilities and equipment modifications necessary to accommodate the Interconnection.
- H. If the Generating Facility's operating characteristics can be modified such that improvements to the Distribution System are reduced or not required, and both the Utility and Customer agree on the operating characteristics, the Customer shall have the opportunity to modify the Generating Facility's operating characteristics to reduce facility costs.

R14-2-2619. Level 3 Study Track

- A. A Customer interconnecting a Generating Facility with a Maximum Capacity of 2 MW or greater, or a Generating Facility that does not meet the screening requirements for Level 1 Super Fast Track, Level 2 Fast Track, or Supplemental Review, shall apply for Interconnection under the Level 3 Study Track Application process.
- B. An Applicant may request a pre-application meeting with the Utility to discuss the proposed design, installation, and operation of the Generating Facility prior to submission of an Application.
- C. The Level 3 Study Track shall proceed as follows:
 - 1. Within 14 calendar days after transfer from Level 1 Super Fast Track, transfer from Level 2 Fast Track, or transfer from Supplemental Review, a Utility shall review the Application and provide the Applicant notice:
 - a. That the Application satisfies all requirements under R14-2-2614(B); or
 - b. That the Application does not satisfy one or more requirements under R14-2-2614(B).
 - i. The Utility shall specify the additional information or documents required;
 - ii. The Applicant shall submit the specified information or documents; and
 - iii. The Application may be deemed withdrawn if the Applicant does not submit the required information or documents within 30 calendar days.
 - 2. Within 30 calendar days following provision of notice under (C)(1)(a) or R14-2-2614(D)(1), the Utility shall review the Application and notify the Applicant of one of the following determinations:

- a. The Generating Facility design appears to meet all of the applicable Interconnection requirements; no further studies, special protective requirements, or system modifications are required; and the Application is deemed complete and approved for Interconnection; or
 - b. The Generating Facility does not meet one or more of the Utility's Interconnection requirements, which shall be specified, and cannot be interconnected without further information, data, engineering studies, or modifications to the Distribution System or Generating Facility; the Interconnection shall proceed according to a meeting and study process deemed necessary by the Utility; itemized costs and timelines for the studies will be disclosed and agreed upon by the Utility and Applicant prior to the start of each one; and all studies will be made available to the Applicant.
3. Within 21 calendar days after notice is provided under subsection (C)(2)(b), a Scoping Meeting may be conducted to discuss which studies are needed, and the Utility shall provide to the Customer at the Scoping Meeting an acknowledgement letter describing the project scope and including a good faith estimate of the cost.
4. If requested by the Customer, the Utility shall undertake a Feasibility Study. The Utility shall provide the Customer, within 14 calendar days after the Scoping Meeting, a Feasibility Study agreement including an outline of the scope of the study and a non-binding, good faith estimate of the cost of the materials and labor needed to perform the study. The Utility shall conduct the Feasibility Study after the Customer executes the Feasibility Study agreement, provides all requested information necessary to complete the Feasibility Study, and pays the estimated costs.
 - a. The Feasibility Study shall be completed within 45 calendar days.
 - b. The Feasibility Study:
 - i. Shall include review of short circuit currents, including contribution from the proposed generator, as well as coordination of and potential overloading of distribution circuit protection devices;
 - ii. Shall provide initial details and ideas on the complexity and likely costs to interconnect prior to commitment of costly engineering review; and
 - iii. May be used to focus or eliminate some or all of the more intensive System Impact Study.
5. If deemed necessary by the Customer or the Utility, the Utility shall undertake a System Impact Study. The Utility shall provide the Customer, within 14 calendar days after completing the

previous study or meeting, a System Impact Study agreement including an outline of the scope of the study and a non-binding, good faith estimate of the cost of the materials and labor needed to perform the study. The Utility shall conduct the System Impact Study after the Customer executes the System Impact Study agreement, provides all requested Customer information necessary to complete the System Impact Study, and pays any required deposit of the estimated costs.

- a. The System Impact Study shall be completed within 45 calendar days.
- b. The System Impact Study shall reveal all areas where the Distribution System would need to be upgraded to allow the Generating Facility to be built and interconnected as designed and may include discussions with the Customer about potential alterations to generator design, including downsizing to limit grid impacts, as well as operational limits that would limit grid impacts if implemented.
- c. If the Utility determines, in accordance with Good Utility Practice, that the Distribution System modifications required to accommodate the proposed Interconnection are not substantial, the System Impact Study shall identify the scope and detailed cost of the modifications.
- d. If the Utility determines, in accordance with Good Utility Practice, that the system modifications to the Distribution System are substantial, a Facilities Study shall be performed.
- e. Each Utility shall include in its Interconnection Manual a description of the various elements of a System Impact Study it would typically undertake pursuant to this Section, including:
 - i. Load flow study;
 - ii. Short-circuit study;
 - iii. Circuit protection and coordination study;
 - iv. Impact on system operation;
 - v. Stability study, and the conditions justifying inclusion; and
 - vi. Voltage collapse study, and the conditions justifying inclusion.
6. The Utility shall undertake a Facilities Study if needed based on the outcome of the System Impact Study. The Utility shall provide the Customer, within 14 calendar days after completing the previous study or meeting, a Facilities Study agreement including an outline of the scope of the study and a non-binding, good faith estimate of the cost of the materials and labor needed to perform the study. The Utility shall conduct the Facilities Study after the Customer executes the

Facilities Study agreement, provides all requested Customer information necessary to complete the study, and pays the estimated costs.

a. The Facilities Study shall be completed within 45 calendar days.

b. The Facilities Study shall delineate the detailed costs of construction and milestones. Construction may include new circuit breakers, relocation of reclosers, new Utility grid extensions, reconductoring lines, new transformers, protection requirements, and interaction.

7. If the Generating Facility meets all of the applicable Interconnection requirements, all items identified in any meeting or study have been resolved and agreed to, and the Utility has received the final design drawings, then:

a. The Utility shall send to the Customer, within seven calendar days, an executable Interconnection Agreement, which shall include as an exhibit the cost for any required Distribution System modifications;

b. The Customer shall review, sign, and return the Interconnection Agreement and any balance due for Interconnection studies or required deposit for facilities; and

c. The Customer shall then complete installation of the Generating Facility, and the Utility shall complete any Distribution System modifications, according to the requirements set forth in the Interconnection Agreement. The Utility shall employ best reasonable efforts to complete such system upgrades in the shortest time practical.

8. Once an Application is approved, the Generating Facility shall be subject to R14-2-2621.

D. A Utility may not charge a fee for an additional review under subsection (C), unless a tariff containing such a fee is approved for the Utility by the Commission.

E. A Customer shall have the responsibility for any costs of Utility facilities and equipment modifications necessary to accommodate the Customer's Interconnection.

F. If the Generating Facility's operating characteristics can be modified such that improvements to the Distribution System are reduced or not required, and both the Utility and Customer agree on the operating characteristics, the Customer shall have the opportunity to modify the Generating Facility's operating characteristics to reduce facility costs.

R14-2-2620. Supplemental Review

A. If a Utility determines that an Application for Interconnection cannot be approved without conducting a Supplemental Review, or if requested by the Applicant:

1. The Utility shall, within seven calendar days of making the determination or receiving the request, provide the Applicant a good faith estimate of the cost of the Supplemental Review and a written agreement setting forth the terms of the Supplemental Review; and
 2. The Customer shall, within 14 calendar days of receipt of the good faith estimate and written agreement, sign the written agreement and submit to the Utility a deposit for the full estimated cost of the Supplemental Review.
- B. The Applicant may specify the order in which the Utility will complete the screens in subsection (E).**
- C. The Applicant shall be responsible for the Utility's actual costs for conducting a Supplemental Review and must pay any review costs exceeding the deposit amount within 30 calendar days of receipt of an invoice for the balance, or resolution of any dispute as to those costs. If the deposit amount exceeds the actual costs of the Supplemental Review, the Utility shall return such excess to the Customer, without interest, within 30 calendar days of completing the Supplemental Review.**
- D. Within 21 calendar days following receipt of the deposit for a Supplemental Review, the Utility shall:**
1. Perform a Supplemental Review by determining compliance with the screens in subsections (E)(1), (2), and (3);
 2. Unless the Applicant has previously provided instructions for how to respond to the Generating Facility's failure to meet any of the Supplemental Review screens:
 - a. Notify the Applicant following the failure of any of the screens; and
 - b. If the Utility is unable to determine compliance with the screen in subsection (E)(1), notify the Applicant within two calendar days of making such determination and request the Applicant's permission to:
 - i. Continue evaluating the Interconnection under subsection (E);
 - ii. Terminate the Supplemental Review and continue evaluating the Generating Facility under R14-2-2619; or
 - iii. Terminate the Supplemental Review upon withdrawal of the Interconnection request by the Applicant; and
 3. Notify the Applicant of the results of the Supplemental Review along with copies of the analysis and data underlying the Utility's determinations of compliance with the screens.
- E. A Utility shall apply the following screens in its Supplemental Review:**
1. A minimum load screen:

- a. If 12 months of line section minimum load data (including onsite load but not station service load served by the Generating Facility) are available, can be calculated, can be estimated from existing data, or can be determined from a power flow model, the aggregate Generating Facility capacity on the line section shall be less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility.
 - b. If 12 months of line section minimum load data are not available, or cannot be calculated, estimated, or determined, the Utility shall include in its Supplemental Review results notification under subsection (D) each reason that it is unable to calculate, estimate, or determine minimum load.
 - c. In making its determination of compliance with subsections (E)(1)(a) and (b), the Utility shall:
 - i. Consider the type of generation used by the Generating Facility when calculating, estimating, or determining the circuit or line section minimum load, using daytime minimum load for solar photovoltaic generation systems with no battery storage (i.e., 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for solar photovoltaic generation systems utilizing tracking systems), and using absolute minimum load for all other generation;
 - ii. For a Generating Facility that serves some station service load, consider only the net injection into the Utility's electric system as part of the aggregate generation; and
 - iii. Not consider as part of the aggregate generation, Generating Facility capacity known to be reflected in the minimum load data already.
2. A voltage and power quality screen: In aggregate with existing generation on the line section:
- a. Voltage regulation on the line section shall be maintained in compliance with relevant requirements under all system conditions;
 - b. Voltage fluctuation shall be within acceptable limits as defined by IEEE 1453, IEEE Recommended Practice for the Analysis of Fluctuating Installations on Power Systems (October 30, 2015), with no future editions or amendments, which is incorporated by reference; on file with the Commission; and published by and available from IEEE, 3 Park Avenue, 17th Floor, New York, New York 10016, and through <http://ieeexplore.ieee.org>; and
 - c. Harmonic levels shall meet IEEE 519 limits, IEEE Recommended Practice and Requirements for Harmonic Control in Electric Power Systems (June 11, 2011), with no future editions or

amendments, which is incorporated by reference; on file with the Commission; and published by and available from IEEE, 3 Park Avenue, 17th Floor, New York, New York 10016, and through <http://ieeexplore.ieee.org>.

3. A safety and reliability screen: The location of the Generating Facility and the aggregate generation capacity on the line section shall not create impacts to safety or reliability that cannot be adequately addressed without application of the Interconnection Study process. In making this determination regarding potential impacts to safety and reliability, the Utility shall give due consideration to the following, and any other relevant factors:

- a. Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers);
- b. Whether the loading along the line section is uniform or even;
- c. Whether the Generating Facility is located in close proximity to the substation (i.e., within less than 2.5 electrical circuit miles);
- d. Whether the line section from the substation to the Point of Interconnection is a main feeder line section rated for normal and emergency ampacity;
- e. Whether the Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time;
- f. Whether operational flexibility is reduced by the Generating Facility, such that transfer of the line section(s) of the Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues; and
- g. Whether the Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, Islanding, reverse power flow, or voltage quality.

F. If the Interconnection satisfies subsection (E), the Application is approved for Interconnection and the Utility shall provide the Applicant notice of the Supplemental Review results.

G. If Interconnection Facilities or minor modifications to the Utility's system are required for the Interconnection to meet the standards in subsection (E), the Utility shall notify the Applicant and request for the Applicant to pay for the modifications. If the Applicant agrees to pay for the modifications to the Utility's electric system, the Utility shall provide an Interconnection Agreement,

along with a non-binding good faith estimate of the cost for the Interconnection Facilities and minor modifications, to the Applicant within seven calendar days after the Applicant agrees to pay for the modifications.

H. If more than Interconnection Facilities or minor modifications to the Utility's system would be required for the Interconnection to meet the screens in subsection (E), the Utility shall notify the Applicant, at the same time it notifies the Applicant of the Supplemental Review results, that the Interconnection request shall be evaluated under R14-2-2619, unless the Applicant withdraws its Application.

I. If the Interconnection fails any of the screens in subsection (E), and the Applicant does not withdraw its Application, the Utility shall continue to evaluate the Application under R14-2-2619.

R14-2-2621. Utility Site Inspection; Approval for Parallel Operation

A. Once an Application is approved for Interconnection:

1. If the Utility has not received an executed Interconnection Agreement, the Utility shall send to the Customer, within seven calendar days after the notice of Application approval, the appropriate Interconnection Agreement for review and signature;
2. If required, the Customer shall submit to the Utility a copy of the final electrical clearance for the Generating Facility issued by the authority having jurisdiction;
3. The Customer shall submit all necessary supplemental documents as specified by the Utility; and
4. A site inspection shall be performed if deemed necessary by the Utility or requested by the Customer.

B. Within seven calendar days after a site inspection is deemed necessary by the Utility, or requested by the Customer, the Utility shall perform a site inspection for which it may charge a fee, if a tariff containing such a fee is approved for the Utility by the Commission. During a site inspection, the Utility shall verify at least the following:

1. The Generating Facility is in compliance with all applicable Interconnection and code requirements;
2. All Generating Facility equipment is properly labeled;
3. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;
4. The inverter nameplate ratings are consistent with the information submitted to the Utility;

5. The Utility has unrestricted 24-hour access to the Utility-owned production meter and Disconnect Switch, and the Disconnect Switch meets all applicable requirements;
 6. The inverter shuts down as required upon simulated loss of Utility voltage; and
 7. To the extent visible, the Generating Facility appears to be wired in accordance with the electrical diagrams submitted to the Utility.
- C. The Utility shall install appropriate metering equipment, if required. The Utility may require the Customer to pay for the metering equipment, if a tariff containing such a fee is approved for the Utility by the Commission.
- D. Within three calendar days of the completion of the site inspection and the receipt of all final applicable signed Interconnection documents, the Utility shall determine whether the Generating Facility meets all applicable requirements and shall notify the Customer that:
1. The Generating Facility is approved for Parallel Operation with the Distribution System per the agreed terms and conditions; or
 2. The Generating Facility has failed the site inspection because it does not meet one or more of the applicable requirements, which shall be specified; the Generating Facility is not approved for Parallel Operation; and specified actions must be taken by the Customer to resolve the issue and to obtain approval for Parallel Operation.
- E. If the Generating Facility fails the initial Utility site inspection:
1. The Applicant shall, within 30 calendar days of the initial site inspection, correct any outstanding issues and notify the Utility that all corrections have been made, or the Application may be deemed withdrawn unless alternative arrangements have been made by the Customer with the Utility; and
 2. The Utility shall, within 14 calendar days of the Applicant notice of correction, perform a repeat inspection of the Generating Facility, for which the Utility may charge a fee, if a tariff containing such a fee is approved for the Utility by the Commission.
- F. A Utility may take any reasonable actions, including locking open a Disconnect Switch, to prevent Parallel Operation for a Generating Facility that fails site inspection.
- G. A Utility may immediately terminate electric service to a Customer who operates a Generating Facility in parallel without Utility approval.
- H. If a Customer does not interconnect a Generating Facility within 180 calendar days after Application approval, the Customer's Application may be considered withdrawn.

R14-2-2622. Interconnection to a Secondary Spot Network System

A. A Secondary Spot Network System is a system that:

1. Simultaneously serves a Customer from three-phase, four-wire, low-voltage (typically 480V) circuits supplied by two or more network transformers which have low-voltage terminals that are connected to the low-voltage circuits through network protectors without ties to adjacent or nearby secondary network systems;
2. Has two or more high-voltage primary feeders that are either dedicated network feeders that serve only other network transformers, or non-dedicated network feeders that serve radial transformers in addition to the network transformers, depending on network size and design; and
3. Has automatic protective devices and fuses intended to isolate faulted primary feeders, network transformers, or low-voltage cable sections while maintaining uninterrupted service to the consumers served from the low-voltage circuits.

B. Because interconnecting a Generating Facility to a Secondary Spot Network System implicates technical requirements that are particular to the design and operational aspects of network protectors that are not required on radial systems, the Utility shall determine the process for interconnecting to a Secondary Spot Network System, subject to the following:

1. A Generating Facility shall not be interconnected to the load side of spot network protectors unless the Generating Facility uses an inverter-based equipment package and, together with the aggregated other inverter-based generation, does not exceed the smaller of 5% of the Secondary Spot Network System's maximum load or 50 kW; and
2. Interconnection of a Generating Facility shall not result in a Backfeed of a Secondary Spot Network System or cause unnecessary operation of any Secondary Spot Network System protectors.

R14-2-2623. Expedited Interconnection Process

A. A Customer interconnecting a Non-Exporting inverter-based energy storage Generating Facility or an Inadvertent Export Generating Facility with a Maximum Capacity of 20 kW or less may apply for Interconnection under the Expedited Interconnection Process. In order to qualify for the Expedited Interconnection Process, the Customer's Generating Facility must meet the applicable conditions specified in subsections (B) and (C).

B. For a Customer interconnecting a Non-Exporting Generating Facility:

1. The Generating Facility shall utilize only UL 1741 and UL 1741SA-listed equipment;
2. The Generating Facility shall meet all applicable codes and standards;
3. The Generating Facility shall comply with Utility Interconnection and contractual requirements;
4. The Generating Facility shall be a Non-Exporting inverter-based energy storage device with an aggregate maximum nameplate rating no greater than 500 kW;
5. No other Generating Facilities, other than isolated back-up Generating Facilities, may be at the same Point of Interconnection as the Generating Facility;
6. The Generating Facility shall comply with R14-2-2615(E) and (F); and
7. The Generating Facility shall comply with one of the following:
 - a. The system capacity shall be less than 25% of the electrical service entrance ampere rating, and less than 50% of the service transformer rating; or
 - b. The system output rating shall be less than 50% of the verifiable Customer minimum load as measured over the past 12 months.

C. For a Customer interconnecting an Inadvertent Export Generating Facility with a Maximum Capacity of 20 kW or less:

1. The Generating Facility shall utilize only UL 1741 and UL 1741SA-listed equipment;
2. The Generating Facility shall meet all applicable codes and standards;
3. The Generating Facility shall comply with Utility Interconnection and contractual requirements;
4. The Generating Facility shall comply with R14-2-2603(E)(1), and (E)(4) through (7);
5. No other Generating Facilities, other than isolated back-up Generating Facilities, may be at the same Point of Interconnection as the Generating Facility; and
6. The Generating Facility shall comply with R14-2-2615(E) and (F).

D. The Expedited Interconnection Process shall proceed as follows:

1. An Applicant shall complete an Application provided by the Utility and submit the Application to the Utility along with all required supplemental information and documents, which shall be noted on the Application, as well as an executed Interconnection Agreement, if required by the Utility, and with an initial application fee or processing fee only if a tariff containing such a fee is approved for the Utility by the Commission.
2. Within seven calendar days of receipt of the Application, the Utility shall notify the Applicant whether the Application is complete or incomplete.

- a. When the Utility notifies the Applicant that an Application is incomplete, the Utility shall specify what additional information or documentation is necessary to complete the Application.
- b. Within 30 calendar days after receipt of notification that an Application is incomplete, an Applicant shall withdraw the Application or submit the required information or documentation. If an Applicant does not submit the required information or documentation within 30 calendar days, the Application may be considered withdrawn.
3. Within seven calendar days following the receipt of a complete Application, the Utility shall review the Application and notify the Applicant of one of the following determinations:
 - a. The Generating Facility meets the requirements of subsections (B) and (C), and the Application is approved as submitted; or
 - b. The Generating Facility does not meet the requirements of subsections (B) and (C), in a manner specified by the Utility; the Application is no longer eligible for processing under the Expedited Interconnection Process; and the Applicant has the option to select Application processing in accordance with R14-2-2620.
4. If the Application is not accepted as submitted, the Applicant shall notify the Utility within 30 calendar days whether it wishes to proceed with the Interconnection.
 - a. If the Applicant does not wish to proceed with the Interconnection, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn.
 - b. If the Applicant wishes to proceed with the Interconnection, the Utility shall begin processing the Application in accordance with R14-2-2620.
5. Once an Application is approved:
 - a. If the Utility has not received an executed Interconnection Agreement, the Utility shall send to the Customer, within three calendar days after the notice of Application approval, the appropriate Interconnection Agreement for review and signature; and
 - b. Within three calendar days of the receipt of all final applicable signed Interconnection documents, the Utility shall notify the Customer that the Generating Facility is approved for Parallel Operation.

R14-2-2624. Disconnect Switch Requirements

A. If required by a Utility, a Customer shall install and maintain a visual-open, manually operated, load break Disconnect Switch that completely opens and isolates all ungrounded conductors of the Generating Facility from the Distribution System. For multi-phase systems, the Disconnect Switch shall be gang-operated.

B. A Utility may impose additional requirements for a Disconnect Switch in its Interconnection Manual.

R14-2-2625. Advanced Inverter Requirements

A. If interconnected after the effective date of this Article, a Generating Facility utilizing inverter-based technology shall be interconnected via advanced inverter(s) that are capable of, at minimum, the advanced grid support features specified in subsection (B).

B. At a minimum, an advanced inverter shall be capable of the following grid support features:

1. Volt/VAR Mode – Provide voltage/VAR control through dynamic reactive power injection through autonomous responses to local voltage measurement;
2. Volt/Watt Mode – Provide voltage/watt control through dynamic active power injection through autonomous responses to local voltage measurement;
3. Fixed Power Factor – Provide reactive power by a fixed power factor;
4. Anti-Islanding – Support anti-Islanding to trip off under extended anomalous conditions;
5. Low/High Voltage Ride-through (L/HVRT) – Provide ride-through of low/high voltage excursions beyond normal limits;
6. Low/High Frequency ride-through (L/HFRT) – Provide ride-through of low/high frequency excursions beyond normal limits;
7. Soft-Start Reconnection – Reconnect after grid power is restored; and
8. Frequency/Watt Mode – Provide Frequency/Watt control to counteract frequency excursions beyond normal limits by decreasing or increasing real power.

C. The grid support features listed in subsections (B)(1), (2), (3), (7), and (8) shall only be activated upon mutual consent between the Customer and the Utility.

D. The grid support features listed in subsections (B)(4), (5), and (6) shall always be operational.

E. Advanced inverters that meet the requirements of UL 1741SA-listed and certified, as specified in R14-2-2611; and meet the shutdown protective functions (under/over voltage, under/over frequency, and anti-Islanding) specified in IEEE 1547, IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems, as revised (May 21, 2014), with no future editions or amendments, which is

incorporated by reference; on file with the Commission; and published by and available from the Institute of Electrical and Electronic Engineers, Inc., 3 Park Avenue, 17th Floor, New York, New York 10016, and through <http://ieeexplore.ieee.org>; shall be required on all Generating Facilities that use inverters.

R14-2-2626. Utility Reporting Requirements

- A. No later than 90 calendar days after the effective date of this Article, each Utility shall file with Docket Control, for Commission review and approval, an Interconnection Manual.**
- B. A Utility shall file any subsequent revisions to its Interconnection Manual with Docket Control, for Commission review and approval, at least 60 calendar days prior to the proposed effective date of the revision. A revision to enhance health or safety shall become effective immediately, subject to subsequent review and approval by the Commission. The Commission staff may contest a proposed revision and may seek a suspension of the revision for further review. The Utility shall file, with Docket Control, within 10 calendar days of the effective decision date, an updated Interconnection Manual conforming to the Commission's decision approving any revisions to a Utility's Interconnection Manual.**
- C. Each Utility shall maintain records concerning each received Application for Interconnection and shall include:**
- 1. The date the Application was received;**
 - 2. Any documents generated in the course of processing the Application;**
 - 3. Any correspondence regarding the Application;**
 - 4. The final disposition of the Application; and**
 - 5. The final disposition date.**
- D. By March 30 of each year, each Utility shall file with the Commission a Distributed Generation Interconnection Report, with data for the preceding calendar year that shall include:**
- 1. The number of complete Applications denied by track level, including the reasons for denial;**
 - 2. A list of special contracts, approved by the Commission during the reporting period, that provide discounted rates to Customers as an alternative to self-generation;**
 - 3. Pre-Application Report:**
 - a. Total number of reports requested;**
 - b. Total number of reports issued;**

- c. Total number of requests withdrawn; and
- d. Maximum, mean, and median processing times from receipt of request to issuance of report;
- 4. Interconnection Application:
 - a. Total number received, broken down by:
 - i. Primary fuel type (e.g., solar, wind, biogas, etc.); and
 - ii. System size (<20 kW, 20 kW-2 MW, >2MW);
 - b. Expedited Interconnection Process:
 - i. Total number of applications approved;
 - ii. Total number of applications denied;
 - iii. Total number of applications withdrawn; and
 - iv. Maximum, mean, and median processing times from receipt of complete Application to execution of Interconnection Agreement;
 - c. Level 1 Super Fast Track Process:
 - i. Total number of applications approved;
 - ii. Total number of applications denied;
 - iii. Total number of applications withdrawn; and
 - iv. Maximum, mean, and median processing times from receipt of complete Application to execution of Interconnection Agreement;
 - d. Level 2 Fast Track Process:
 - i. Total number of applications approved;
 - ii. Total number of applications denied;
 - iii. Total number of applications withdrawn; and
 - iv. Maximum, mean, and median processing times from receipt of complete Application to execution of Interconnection Agreement;
 - e. Supplemental Review:
 - i. Total number of applications approved;
 - ii. Total number of applications denied;
 - iii. Total number of applications withdrawn; and
 - iv. Maximum, mean, and median processing times from receipt of complete Application to execution of Interconnection Agreement; and

f. Level 3 Study Process:

- i. Total number of System Impact Studies completed;
- ii. Maximum, mean, and median processing times from receipt of signed System Impact Study agreement to provision of study results;
- iii. Total number of Facilities Studies completed;
- iv. Maximum, mean, and median processing times from receipt of signed Facility Study agreement to provision of study results;
- v. Maximum, mean, and median processing times from receipt of complete Application to execution of Interconnection Agreement.

R14-2-2627. Electric Cooperatives

- A. Upon Commission approval of an Electric Cooperative's Interconnection Manual, its provisions shall substitute for the timeline requirements set forth in R14-2-2614, and R14-2-2616 through R14-2-2623 for the Electric Cooperative and its Customers.
- B. Each Electric Cooperative shall employ best reasonable efforts to comply with the deadlines set forth in the applicable provisions of this Article or, if unable to meet those deadlines, shall process all Applications and conduct all inspections and tests in the shortest time practical.